

chain nodes :

9

ring nodes :

1 2 3 4 5 6 7 8

chain bonds :

4-9

ring bonds :

1-2 1-8 2-3 3-4 4-5 5-6 6-7 7-8

exact/norm bonds :

1-2 1-8 2-3 3-4 4-5 5-6 6-7 7-8

exact bonds :

4-9

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:CLASS

L1 STRUCTURE UPLOADED

=> s 11 exa full  
FULL SEARCH INITIATED 08:16:14 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 8760 TO ITERATE

100.0% PROCESSED 8760 ITERATIONS 6 ANSWERS  
SEARCH TIME: 00.00.01

L2 6 SEA EXA FUL L1

=> s 12  
L3 70 L2

=> s 13 and py<=2003  
23976327 PY<=2003  
L4 65 L3 AND PY<=2003

=> s 14 and py<=2002  
22928594 PY<=2002  
L5 60 L4 AND PY<=2002

=> d 15 50-60 ibib abs hitstr

L5 ANSWER 50 OF 60 CAPLUS COPYRIGHT 2008 ACS on STN

Title Cyclooctatetraene derivatives from bromocyclooctatetraene  
Author/Inventor Harmon, Claude A.; Streitwieser, Andrew, Jr.  
Patent Assignee/Corporate Source Dep. Chem., Univ. California, Berkeley, CA, USA  
Source Journal of Organic Chemistry (1973 ), 38(3), 549-51 CODEN: JOCEAH; ISSN: 0022-3263  
Document Type Journal  
Language English  
Abstract N,N-Dimethylaminocyclooctatetraene, cyclopropylcyclooctatetraene, and cyclooctatetraenenitrile were prepared for the first time. N,N-Diethylaminocyclooctatetraene was also prepared, but rearranged to  $\alpha$ -N,N-diethylaminostyrene. p-Anisylcyclooctatetraene, cyclooctatetraenaldehyde, and vinylcyclooctatetraene were prepared in greatly improved yields over previously described procedures.

## L5 ANSWER 51 OF 60 CAPLUS COPYRIGHT 2008 ACS on STN

Title Reaction of 1,3,5-cyclooctatrien-7-yne at various temperatures  
Author/Inventor Ogliaruso, Michael A.; Lankey, Ann S.  
Patent Assignee/Corporate Source Dep. Chem., Virginia Polytech. Nst., Blacksburg, VA, USA  
Source Journal of Organic Chemistry (1971 ), 36(22), 3339-42 CODEN: JOCEAH; ISSN: 0022-3263  
Document Type Journal  
Language English  
Abstract 1,3,5-Cyclooctatrien-7-yne (dehydrcyclooctatetraene) was reported best prepared in ether at room temperature, to afford the highest yield of adduct with a trapping agent. Yields of product from the reaction of this species with a trapping agent vary depending upon (a) when the trapping agent is added, and, (b) the temperature employed. Contrary to previous indicated reports, dehydrcyclooctatetraene is best prepared and allowed to react at temps. other than room temperature

## L5 ANSWER 52 OF 60 CAPLUS COPYRIGHT 2008 ACS on STN

Title Chloro-, bromo, and iodocyclooctatetraene. Preparation and some reactions  
Author/Inventor Gasteiger, Johann; Gream, George E.; Huisgen, Rolf; Konz, Will E.; Schnegg, Ulrich  
Patent Assignee/Corporate Source Inst. Org. Chem., Univ. Muenchen, Munich, Ger  
Source Chemische Berichte (1971 ), 104(8), 2412-19 CODEN: CHBEAM; ISSN: 0009-2940  
Document Type Journal  
Language German  
Abstract The cis-7,8-dihalocyclocta-1,3,5-trienes, formed by chlorination or bromination of cyclooctatetraene (I) at -60° in CH<sub>2</sub>Cl<sub>2</sub>, were dehydrohalogenated in situ by KOBu-tert at -45° to give 85% bromocyclooctatetraene (II) and 74-83% chlorocyclooctatetraene, resp. Reaction of cyclooctatetraenyllithium with iodine gave iodocyclooctatetranene. Methoxy-, phenoxy-, methyl-, and phenylcyclooctatetraene were also prepared from I or II by known methods.

## L5 ANSWER 53 OF 60 CAPLUS COPYRIGHT 2008 ACS on STN

Title Further contributions to the mechanism of the halocyclooctatetraene rearrangement  
Author/Inventor Konz, Will E.; Hecht, Wolfgang; Huisgen, Rolf  
Patent Assignee/Corporate Source Inst. Org. Chem., Univ. Muenchen, Munich, Fed. Rep. Ger.  
Source Journal of the American Chemical Society (1970 ), 92(13), 4104-5 CODEN: JACSAT; ISSN: 0002-7863  
Document Type Journal  
Language English  
Abstract The position of the Br in trans- $\beta$ -bromostyrene, which was formed from bromocyclooctatetraene (I), was studied. It was brominated

to obtain (via II) 1,4-dibromocyclooctatetraene (III), which was converted to the dimethyl derivative by Me<sub>2</sub>LiCu. III was gas chromatographed to obtain trans-p,β-dibromostyrene. There was a 1,3-migration of the Br atom.

L5 ANSWER 54 OF 60 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Kinetics and mechanism of the rearrangement of bromocyclooctatetraene to trans-β-bromostyrene

Author/Inventor

Huisgen, Rolf; Konz, Will E.

Patent Assignee/Corporate Source

Inst. Org. Chem., Univ. Muenchen, Munich, Fed. Rep. Ger.

Source

Journal of the American Chemical Society (1970 ), 92(13), 4102-4 CODEN: JACSAT; ISSN: 0002-7863

Document Type

Journal

Language

English

Abstract

A rearrangement mechanism was proposed and discussed in which the valence tautomerization of bromocyclooctatetraene (I) to 1-bromobicyclo[4.2.0]octa- 2,4,6-triene (II) was followed by ionization to the homocyclopropenium salt. Ion recombination produced the cyclobutene derivative III, which formed trans-β-bromostyrene by a conrotatory ring opening. Exchange expts. with AgOAc, LiClO<sub>4</sub>, MeOH, and LiI indicated a reversible ionization in the rate-determining step, which was verified by the effect of the solvent on the rate. However, another step (I → II) became rate-determining at high solvent polarity. First-order kinetics were observed and rate consts. were calculated for the reaction.

L5 ANSWER 55 OF 60 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Evidence for different valence tautomers of bromocyclooctatetraene

Author/Inventor

Huisgen, Rolf; Konz, Will E.; Gream, George E.

Patent Assignee/Corporate Source

Inst. Org. Chem., Univ. Muenchen, Munich, Fed. Rep. Ger.

Source

Journal of the American Chemical Society (1970 ), 92(13), 4105-6 CODEN: JACSAT; ISSN: 0002-7863

Document Type

Journal

Language

English

Abstract

1- and 7- Substituted bicyclic tautomers were intermediates in the reactions of bromo- (I) and chlorocyclooctatetraene (II) with 4-phenyl-1,2,4-triazoline-3,5-dione (III). A solution of II and III gave 27% IV (R = H, R' = Cl) and 30% IV (R = Cl, R' = H). I was heated with III to form 12% IV (R = H, R' = Br), 25% IV (R = Br, R' = H), trans-β-bromostyrene, and V. I competed with 1- and 7-bromobicyclo[4.2.0]octatriene for the strong dienophile III.

L5 ANSWER 56 OF 60 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Intermediate occurrence of 1,2- dehydrocyclooctatetraene

Author/Inventor

Krebs, A.

Patent Assignee/Corporate Source

Univ. Heidelberg, Germany

Source

Angew. Chem. (1965 ), 77(21), 966

Document Type

Journal

Language

German

Abstract

Bromocyclooctatetraene (I) treated with a suspension of Me<sub>3</sub>COK in Et<sub>2</sub>O at room temperature 70 hrs. gave a brown powder, insoluble in Et<sub>2</sub>O and C<sub>6</sub>H<sub>6</sub>. The powder was distilled in vacuo to give 16% tert-butoxycyclooctatetraene (II), b<sub>0</sub>.05 37-8°. The residue was chromatographed on SiO<sub>2</sub> with CCl<sub>4</sub> to give 9% naphtho[2,3]cyclooctatetraene (III), m. 113-14°. Hydrolysis of II gave cycloocta-1,3,5-trien-7-one, and hydrogenation gave tert-butoxycyclooctane. Oxidation of III gave benzene-1,2,4,5-tetracarboxylic acid. Dehydrobromination of I by treating with tetraphenylcyclopentadienone or PhN<sub>3</sub> gave 72% 1,2,3,4-tetraphenylbenzo[5,6]cyclooctatetraene, m. 241-2°, or 38% 1-phenyl-1,2,3-triazolo[4,5]cyclooctatetraene, m. 67.5-8°, resp., which indicates the occurrence of the cyclooctyne compound as an intermediate.

L5 ANSWER 57 OF 60 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Cyclooctatriene

Author/Inventor

Sanne, Walter; Schlichting, Otto

Patent Assignee/Corporate Source

Badische Anilin- & Soda-Fabrik Akt.-Ges.

Document Type

Patent

Language

Unavailable

Patent Information

PATENT NO.	DATE	APPLICATION NO.	DATE
DE 1034626	19580724	DE 1956-B42186	19561019

Patent Number (1)

DE 1034626

Patent Publication Date (1)

19580724

Application Number (1)

DE 1956-B42186

Application Date (1)

19561019

Abstract

1,3,6-Cyclooctatriene (I) was obtained in good yield by reducing cyclooctatetraene (II) in aqueous solution with a slight excess of activated Zn in the presence of 0.06 to 0.2 equivs. of alkaline bases. A solution of CuSO<sub>4</sub> 2 in water 10 was added at 65° to a stirred mixture of II 624, alc. 950, water 200, and 91% Zn dust 450 parts. NaOH (40%) 50 parts was added slowly to the mixture while the temperature rose to 75-80°. The mixture was neutralized with 25% H<sub>2</sub>SO<sub>4</sub> and steam distilled. After dilution of the distillate 2000 with water 6000-8000, the upper layer, containing crude I 617 was separated, dried and distilled to obtain pure I 528 parts, b58 64-5°, n<sub>24D</sub> 1.5056. Alternatively, the alkaline mixture was cooled, diluted with water 8000 parts and the separated crude I distilled to obtain pure I in 88.4% yield.

L5 ANSWER 58 OF 60 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Monohalo derivatives of cyclooctatetraene

Author/Inventor

Reicheneder, Franz; Dury, Karl

Patent Assignee/Corporate Source

Badische Anilin- & Soda-Fabrik Akt.-Ges.

Document Type

Patent

Language

Unavailable

Patent Information

PATENT NO.	DATE	APPLICATION NO.	DATE
DE 1035648	19580807	DE 1957-B43588	19570220

Patent Number (1)

DE 1035648

Patent Publication Date (1)

19580807

Application Number (1)

DE 1957-B43588

Application Date (1)

19570220

Abstract

The title compds. are prepared by reaction of a 7,8-dihalo bicyclo[0.2.4]cycloocta-2,4-diene (I) in the presence of an inert organic solvent, e.g. petr. ether, cyclohexane, cyclooctane, C<sub>6</sub>H<sub>6</sub>, toluene, Me<sub>2</sub>NOCH, N-methyl- $\alpha$ -pyrrolidone, dioxane, tetrahydrofuran (II), and their mixts., with an alkali metal derivative of acetylene hydrocarbons, e.g. Na acetylidyde (III), Li acetylidyde, K vinylacetylidyde and others, at -20 to 60°. To 90 g. I (halogen = Cl) in 100 g. II is added at 0-10° with stirring 50 g. III in 500 g. II, the mixture stirred 3 hrs. at room temperature and another 1-2 hrs. at 60°, cooled, mixed with ice H<sub>2</sub>O, extracted with Et<sub>2</sub>O, dried, the Et<sub>2</sub>O evaporated, and the residue distilled to give 35% monochlorocyclooctatetraene, b5 50-2°, and 6.5 g. cis- $\beta$ -chlorostyrene. Analogously is prepared the mono-Br derivative, b1.5 39-45°.

L5 ANSWER 59 OF 60 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Cyclooctatetraene derivatives

Author/Inventor

Cope, Arthur C.; Burg, Marion

Patent Assignee/Corporate Source

Merck & Co., Inc.

Document Type

Patent

Language

Unavailable

Patent Information

PATENT NO.	DATE	APPLICATION NO.	DATE
US 2784240	19570305	US 1952-328255	19521227

## Patent Number (1)

US 2784240

## Patent Publication Date (1)

19570305

## Application Number (1)

US 1952-328255

## Application Date (1)

19521227

## Abstract

Mono-Cl and mono-Br derivs. of cyclooctatetraene are prepared by dehydrohalogenation between the cyclooctatetraene dihalide (I) and a base at low temperature 1 (dichloride) (0.1 mole) in 100 ml. dry ether was treated under N with 0.111 mole PhLi with vigorous stirring and cooling over 45 min. at -5 to -2°, the mixture stirred 10 hrs., 100 ml. cold H<sub>2</sub>O added, the orange layer washed with H<sub>2</sub>O and the H<sub>2</sub>O washings extracted with ether, and the extract dried and distilled gave 3.66 g. monochlorocyclooctatetraene, b<sub>5.5</sub> 50-1°, d<sub>25</sub> 1.1199, nD<sub>25</sub> 1.5542, MD 39.70. Bromocyclooctatetraene (6.6 g.), b<sub>1.8</sub> 52.5-3°, nD<sub>25</sub> 1.5870, d<sub>25</sub> 1.4206, MD 43.26, was also obtained in like manner. Monochlorocyclooctatetraene (1.37 g.) and a few mg. hydroquinone refluxed under N at 200° 2 hrs. gave 1.25 g. cis-β-chlorostyrene, b<sub>3.5</sub> 59°, and nD<sub>25</sub> 1.5762. Cis-β-chlorostyrene (150 mg.) and 3 mg. PCl<sub>5</sub> heated at 220-35° 2 hrs. in a sealed tube gave cis- and trans-β-chlorostyrene, nD<sub>25</sub> 1.5740. β-Bromostyrene, nD<sub>25</sub> 1.6052, was obtained similarly. β-Iodostyrene was prepared from 1.38 g. chlorocyclooctatetraene, 1.95 g. NaI, and a few mg. hydroquinone in 11 ml. acetone refluxed under N 24 hrs. giving 72% β-iodostyrene, b<sub>1</sub> 74°, nD<sub>25</sub> 1.6585. Li diethylamide and Li 2,6-dimethylpiperidine may be used instead of phenyllithium.

L5 ANSWER 60 OF 60 CAPLUS COPYRIGHT 2008 ACS on STN

## Title

Cyclic polyolefins. XIX. Chloro- and bromocyclooctatetraenes

## Author/Inventor

Cope, Arthur C.; Brug, Marion

## Patent Assignee/Corporate Source

Massachusetts Inst. of Technol., Cambridge

## Source

Journal of the American Chemical Society (1952 ), 74, 168-72 CODEN: JACSAT; ISSN: 0002-7863

## Document Type

Journal

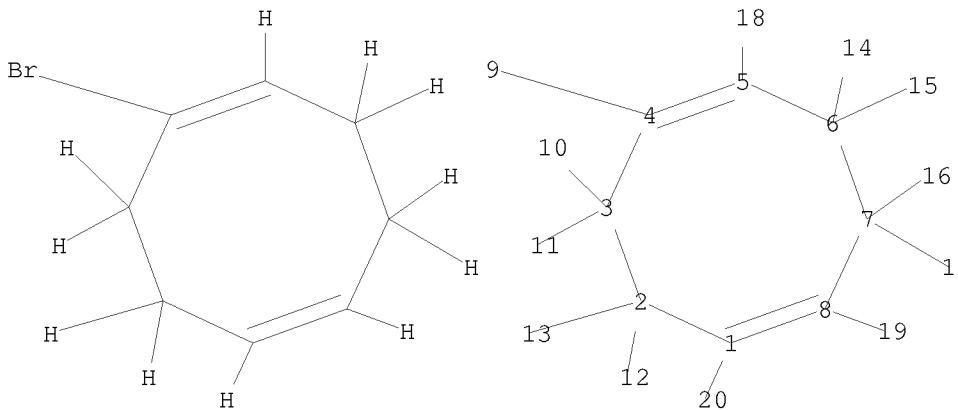
## Language

Unavailable

## Abstract

cf. C.A. 46, 5600i, 9528d. Evidence supporting the bridged-ring structure for cyclooctatetraene dichloride (I) and dibromide (II) was obtained by oxidation of I to 3,4-dichloro-cis-1,2-cyclobutanedicarboxylic acid (IV). Dehydrohalogenation of I and II with PhLi reopened the bridged ring to give chlorocyclooctatetraene (V) and the Br compound (VI); yields 26 and 33%, resp. Hydrogenation of V and VI over Pt oxide yielded cyclooctane (VII), m. 8-11° and 8.0-11.7°, resp., nD<sub>25</sub> 1.4560 and 1.4555. (M.ps. are corrected, b.ps. uncor.). Dry Cl (64.5 g.) in 200 cc. CCl<sub>4</sub> (prepared at -20°) added dropwise during 1.5 hrs. to 200 cc. CCl<sub>4</sub> at -35 to -25° containing 86 g. cyclooctatetraene (VIII), the mixture stirred 1 hr., let come to room temperature under N, and evaporated in vacuo yielded 111 g. I, b<sub>2.7</sub> 73-4°, nD<sub>25</sub> 1.5382, d<sub>425</sub> 1.2514, f.p. 2.3°. It forms a solid dimer on standing at room temperature I (10 g.) in 100 cc. Me<sub>2</sub>CO added during 45 min. to 83 g. KMnO<sub>4</sub> in 1 l. Me<sub>2</sub>CO and 400 cc. water at 3-5°, the mixture stirred 8 hrs., let stand 33 hrs. at room temperature, filtered, and the filtrate concentrated to 0.5 volume in vacuo without heating and extracted with Et<sub>2</sub>O, yielded 4.3 g. IV, m. 176.8-8°(decomposition). I on ozonization yielded 35% IV. IV (426 mg.) in 4 cc. water containing 0.80 g. NaOH hydrogenated 24 hrs. at room temperature and pressure over 0.5 g. Raney Ni W-7 yielded 7.7% cis-1,2-cyclobutanedicarboxylic acid (IX), m. 139°. Br (81 g.) in 100 cc. CH<sub>2</sub>Cl<sub>2</sub> added during 1.5 hrs. to 52 g. VII in 150 cc. CH<sub>2</sub>Cl<sub>2</sub> at -15 to -8° yielded 111 g. II, m. 34.0-4.8°. PhLi (0.111 mole) in 270 cc. Et<sub>2</sub>O added during 45 min. to 17.5 g. I in 100 cc. Et<sub>2</sub>O at -5 to -2°, the mixture stirred 3 hrs. (ice-salt bath) and 7 hrs. while warming to room temperature, 100 cc. cold water added, and the solution extracted with Et<sub>2</sub>O yielded 3.66 g. V, b<sub>5.5</sub> 51-2°, nD<sub>25</sub> 1.5542, d<sub>425</sub> 1.1199, MRD 39.70 (calculated 39.94). II (21 g.) in 100 cc. Et<sub>2</sub>O and 0.078 mole PhLi in 270 cc. Et<sub>2</sub>O yielded 4.64 g. VI, b<sub>1.8</sub> 52.5-53°, nD<sub>25</sub> 1.5870, d<sub>425</sub> 1.4206, MRD 43.26 (calculated 42.84). V (1.37 g.) and a few mg. p-C<sub>6</sub>H<sub>4</sub>(OH)<sub>2</sub> (X) refluxed 2 hrs. under N (bath temperature 200-10°) yielded 1.25 g. cis-β-chlorostyrene (XI), b<sub>3.5</sub> 59°, nD<sub>25</sub> 1.5762, d<sub>425</sub> 1.1046; which on hydrogenation yielded PhEt, nD<sub>25</sub> 1.4923; oxidation of XI with CrO<sub>3</sub> yielded BzOH. XI (150 mg.) and 3 mg. PCl<sub>5</sub> heated in N 2 hrs. at 200-35° (sealed) yielded a mixture of XI and the trans compound VI (0.75 g.) and X heated 0.5 hrs. under N yielded 0.63 g. β-bromostyrene, b<sub>0.65</sub> 55-6°, nD<sub>25</sub> 1.6055, fragrant odor. V (1.38 g.), 1.95 g. NaI, and X in 11 cc. Me<sub>2</sub>CO refluxed 24 hrs. under N yielded 1.65 g. β-iodostyrene, b<sub>1</sub> 74°, nD<sub>25</sub> 1.6585. Ultraviolet absorption spectra are given.

&gt;



chain nodes :

9 10 11 12 13 14 15 16 17 18 19 20

ring nodes :

1 2 3 4 5 6 7 8

chain bonds :

1-20 2-12 2-13 3-10 3-11 4-9 5-18 6-14 6-15 7-16 7-17 8-19

ring bonds :

1-2 1-8 2-3 3-4 4-5 5-6 6-7 7-8

exact/norm bonds :

1-2 1-8 2-3 3-4 4-5 5-6 6-7 7-8

exact bonds :

1-20 2-12 2-13 3-10 3-11 4-9 5-18 6-14 6-15 7-16 7-17 8-19

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:CLASS 10:CLASS 11:CLASS 12:CLASS 13:CLASS  
14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS 19:CLASS 20:CLASS

L6 STRUCTURE UPLOADED

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100.0% PROCESSED 8760 ITERATIONS 1 ANSWERS  
SEARCH TIME: 00.00.01

L7 1 SEA EXA FUL L6

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L7 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2008 ACS on STN

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L8 6 L7

=> s 18 and py<=2003  
23976327 PY<=2003  
L9 6 L8 AND PY<=2003

=> d 19 1-6 ibib abs

L9 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Preparation of 1,5-cyclooctadiyne and 1,3,5,7-cyclooctatetraene from 1,5-cyclooctadiene

Author/Inventor

Detert, Heiner; Rose, Bernd; Mayer, Winfried; Meier, Herbert

Patent Assignee/Corporate Source

Inst. Org. Chem., Univ. Mainz, Mainz, D-55099, Germany

Source

Chemische Berichte (1994 ), 127(8), 1529-32 CODEN: CHBEAM; ISSN: 0009-2940

Document Type

Journal

Language

German

Abstract

Bromination of 1,5-cyclooctadiene and stepwise dehydrobromination with KOCMe<sub>3</sub> and then KOCMe<sub>3</sub>/18-crown-6 yields 1,5-cyclooctadiyne (5). Prolonged interaction with the base causes complete transformation to cyclooctatetraene. Diyne 5 and even more the intermediate 1-bromo-1-cyclooctenyne are highly reactive dienophiles. The cycloadducts formed with 1,3-cyclohexadiene, carbon disulfide, and tetraphenylcyclopentadienone were isolated and characterized. Treatment of 5 with titanium tetrachloride induces a vigorous polymerization

L9 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Trimethylsilylcyclooctadiene-transition metal complexes: metal-catalyzed protodesilylation of cyclic vinylsilanes, and transfer hydrogenation promoted by the displaced silyl group

Author/Inventor

Bandodakar, Balachandra S.; Nagendrappa, Gopalpur

Patent Assignee/Corporate Source

Dep. Chem., Bangalore Univ., Bangalore, 560 001, India

Source

Journal of Organometallic Chemistry (1992 ), 430(3), 373-83 CODEN: JORCAI; ISSN: 0022-328X

Document Type

Journal

Language

English

Abstract

Complexes of 1-trimethylsilyl-1,5-cyclooctadiene (TMS-COD) with AgI, RhI, PdII and PtII have been prepared and characterized. The distortion in their structures in comparison with the near sym. structures of the corresponding, 1,5-cyclooctadiene (COD) complexes, which is obviously attributable to the presence of vinylic SiMe<sub>3</sub> group, is clearly indicated by their <sup>1</sup>H and <sup>13</sup>C NMR spectral characteristics. The silver complex is somewhat unstable, but the other complexes are quite stable. An unstable CuI complex that could not be satisfactorily characterized was also obtained. If appropriate conditions for the preparation of Rh and Pd complexes are not maintained, desilylation occurs, accompanied by reduction of COD to cyclooctene by transfer of hydrogen from the solvent alc. The displaced silicon-containing moiety seems to enhance the transfer hydrogenation. Attempts to prepare a RuII complex resulted in the formation of a complex of desilylated diene (RuII-COD).

L9 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN

Title

A simple preparation of cyclic vinylic bromides (1-bromocycloalkenes and 1-bromo-1,5-cyclooctadiene) from 1,2-dibromocycloalkanes

Author/Inventor

Bandodakar, Balachandra S.; Nagendrappa, Gopalpur

Patent Assignee/Corporate Source

Dep. Chem., Bangalore Univ., Bangalore, 560 001, India

Source

Synthesis (1990 ), (9), 843-4 CODEN: SYNTBF; ISSN: 0039-7881

Document Type

Journal

Language

English

Abstract

1,2-Dibromocyclopentane, -cyclohexane, -cycloheptane, -cyclooctane, and -cyclododecane, and 5,6-dibromocyclooctene are smoothly dehydrobrominated to the corresponding 1-bromocycloalkenes in 45-84% yield using morpholine-DMSO in C<sub>6</sub>H<sub>6</sub> or EtOH.

L9 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN

Title

9-Oxabicyclo[6.1.0]nonynes

Author/Inventor

Mayer, Winfried; Meier, Herbert

Patent Assignee/Corporate Source

	Inst. Org. Chem., Univ. Mainz, Mainz, D-6500, Fed. Rep. Ger.
Source	Chemische Berichte (1989 ), 122(3), 509-17 CODEN: CHBEAM; ISSN: 0009-2940
Document Type	Journal
Language	German
Abstract	Semiempirical quantum mechanics (MNDO) and force field calcns. (MM2) reveal that two diastereomeric conformations of low energy exist for each of the three isomeric cis-9-oxabicyclo[6.1.0]nonynes I ( $n, m = 0,4; 1,3; 2,2$ ). I are accessible by the selenadiazole method or by dehydrobromination. Conformational anal. by NMR spectroscopy confirms the predicted equilibrium for I ( $n = 1, m = 3$ ); for I ( $n = 0, m = 4$ ) both conformers even at -60°C show a fast equilibration by inversion of the eight-membered ring, and only one conformation is populated.
L9 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN	
Title	Photolysis of some 1-substituted cycloocta-1,5-dienes: synthesis of 1-fluorotricyclo[3.3.0.02,6]octane
Author/Inventor	Cotsaris, Evangelo; Della, Ernest W.
Patent Assignee/Corporate Source	Sch. Phys. Sci., Flinders Univ. South Australia, Bedford Park, 5042, Australia
Source	Australian Journal of Chemistry (1980 ), 33(11), 2561-4 CODEN: AJCHAS; ISSN: 0004-9425
Document Type	Journal
Language	English
Abstract	In a study of the photolysis of several of cycloocta-1,5-diene derivs. as possible precursors of bridgehead-substituted tricyclo[3.3.0.02,6]octanes, only 1-fluoro-1,5-cyclooctadiene successfully underwent photocyclization, giving 1-fluorotricyclo[3.3.0.02,6]octane. 1-Bromo-1,5-cyclooctadiene suffered fission of the carbon-bromine bond, while 1,5-cyclooctadiene-1-carbonitrile afforded a mixture of at least 4 unsatd. isomers.
L9 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN	
Title	Importance of the aromatic ring in adrenergic amines. 2. Synthesis and adrenergic activity of some nonaromatic six- and eight-membered ring analogs of $\beta$ -phenylethanolamine
Author/Inventor	Grunewald, Gary L.; Grindel, Joseph M.; Patil, Popat N.; Salman, Kadhim N.
Patent Assignee/Corporate Source	Sch. Pharm., Univ. Kansas, Lawrence, KS, USA
Source	Journal of Medicinal Chemistry (1976 ), 19(1), 10-16 CODEN: JMCMAR; ISSN: 0022-2623
Document Type	Journal
Language	English
Abstract	Title analogs 2-cyclohexyl-2-hydroxyethylamine-HCl (I) [57559-32-7] and 2-cyclooctyl-2-hydroxyethylamine-HCl (II) [57559-31-6] and unsatd. analogs 2-(cyclohexen-4-yl)- [57559-51-0], 2-cyclooctatetraenyl- [57559-48-5], 2-cyclooctenyl- [57559-49-6], 2-cycloocta-1,3-dien-2-yl- [57559-50-9], and 2-(cycloocta-1,5-dien-2-yl)-2-hydroxyethylamine-HCl [57230-10-1] were prepared by conversion of the corresponding aldehydes to the cyanohydrins, followed by reduction. All compds. had indirect adrenergic activity on the rat vas deferens and on the reserpinized rat vas deferens they potentiated the effects of exogenous norepinephrine. The more saturated the ring moiety, the greater the affinity of the compound was for the amine uptake site of the vas deferens. There was no evidence of interaction of the drug and the uptake site involving $\pi$ -complex formation.

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